

IDENTIFICATION

PRODUCT CODE:	MAINDEC-8E-0088
PRODUCT NAME:	PDP-8/E INSTRUCTION TEST 2
DATE CREATED:	JUNE 10, 1971
MAINTAINER:	DIAGNOSTIC GROUP
AUTHOR:	ED FORTMILLER

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1. ABSTRACT
THIS PROGRAM IS AN EXTENSIVE TEST OF AUTOINDEXING, INDIRECT ADDRESSING, AND THE DCA INSTRUCTION FOR THE PDP-8/E. IT ALSO OFFERS MINIMAL TESTING FOR INTERRUPT AND THE AND, IAD, ISZ, JMS, JMP, AND PROCESSOR IOT INSTRUCTIONS.
2. REQUIREMENTS
- 2.1 EQUIPMENT
PDP-8/E EQUIPPED WITH TELETYPE
- 2.2 STORAGE
THE PROGRAM OCCUPIES MEMORY LOCATIONS 0000-4416.
THE BINARY LOADER MUST BE STORED IN THE LAST MEMORY PAGE.
- 2.3 PRELIMINARY PROGRAMS
IT IS ASSUMED THAT MAINDEC-8E-00A(N) HAS BEEN RUN SUCCESSFULLY.
3. LOADING PROCEDURE
- 3.1 METHOD
THE STANDARD BINARY LOADER IS USED.
4. STARTING PROCEDURE
- 4.1 CONTROL SWITCH SETTINGS (NONE)
- 4.2 STARTING ADDRESS
200
- 4.3 OPERATOR ACTION
 - A. SET THE SWITCH REGISTER TO 200. PRESS LOAD ADDRESS.
 - B. PUSH CLEAR AND THEN CONTINUE. A PROGRAMMED HALT OCCURS WHEN AN ERROR IS ENCOUNTERED.

5. OPERATING PROCEDURE

SAME AS SECTION 4.

6. ERRORS

6.1 ERROR HALTS AND DESCRIPTION

SEE LISTING.

6.2 ERROR RECOVERY

IF IT IS DESIRED TO LOOP ON THE TEST CAUSING THE ERROR, REPLACE THE OPERATE INSTRUCTION PRECEDING THE HLT WITH A JMP TO THE BEGINNING OF THE TEST.

7. RESTRICTIONS

ALL PERIPHERAL DEVICES MUST BE FUNCTIONING TO A DEGREE THAT THE PROCESSOR CLEAR BUTTON WILL CLEAR THEIR FLAGS AND NO FLAGS WILL TURN ON UNLESS AUTHORIZED.

8. MISCELLANEOUS

8.1 EXECUTION TIME

THE TELETYPE BELL RINGS AT THE END OF 1550 PROGRAM PASSES WHICH IS APPROXIMATELY EVERY 5 SECONDS.

9. PROGRAM DESCRIPTION

THE PROGRAM IS A SERIES OF MANY SMALL INDIVIDUAL TESTS. EACH TEST IS PERFORMED USING PREVIOUSLY CHECK FUNCTIONS TO VALIDATE THE TEST. WHEN AN ERROR IS ENCOUNTERED, THE OPERATOR SHOULD INSERT A JUMP INSTRUCTION INTO MEMORY TO CAUSE THE PROGRAM TO LOOP ON THE FAILING TEST. THE PROBLEM CAN THEN BE FOUND BY USING THE OSCILLOSCOPE.

THE INDIVIDUAL PROGRAM TESTS ARE GROUPED INTO THE FOLLOWING CLASSIFICATIONS AND ARE PERFORMED IN THE ORDER SHOWN:

1. DCA TEST
2. INDIRECT ADDRESSING TEST
 - A. USING TAD
 - B. USING AND
3. AUTOINDEX TEST
 - A. USING AND
 - B. USING DCA
 - C. USING TAD
4. PROCESSOR IOT TEST
 - A. USING CAF
 - B. USING SRQ
 - C. USING SPF
 - D. USING KIE
 - E. USING SKON
 - F. USING ION
 - G. USING IOF
 - H. USING GTF
 - I. USING RTF
5. INTERRUPT TEST
 - A. FOLLOWING NOP
 - B. FOLLOWING TAD
 - C. FOLLOWING AND
 - D. FOLLOWING DCA
 - E. FOLLOWING ISZ
 - F. FOLLOWING JMP
 - G. FOLLOWING JMS
 - H. FOLLOWING CLA
 - I. FOLLOWING TSF
 - J. FOLLOWING SKP
 - K. FOLLOWING JMP I
6. CHECK FOR UNAUTHORIZED AUTOINDEXING

THE TELETYPE BELL RINGS APPROXIMATELY EVERY 5 SECONDS TO ASSURE THE OPERATOR THAT THE PROGRAM IS FUNCTIONING PROPERLY.

/PDP-8/E INSTRUCTION TEST 2 MAINDEC-8E-D08B
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6000 SKON=6000 /SKIP IF INTERRUPT ON AND TURN INTERRUPT OFF
6003 SRQ=6003 /SKIP IF INTERRUPT REQUEST
6004 GTF=6004 /GET INTERRUPT FLAGS
6005 RTF=6005 /RESTORE INTERRUPT FLAGS AND TURN INTERRUPT ON
6007 CAF=6007 /CLEAR ALL FLAGS, AC, LINK, AND ENABLE TTY INTERRUPT F.F.
6040 SPF=6040 /SET PRINTER FLAG
6035 KIE=6035 /ENABLE TTY INTERRUPT F.F. WHEN AC 11 EQUALS A 1
7002 BSW=7002 /SWAP BYTES IN AC

0000 *0 0 /LOC 0
0001 0 JMP 1 /LOC 1
0002 2 /LOC 2
0003 3 /LOC 3

0007 *7 0 /CONSTANTS AND VARIABLES

0020 *20 7777 7777
0021 7777 K7777, 7777
0022 3777 K3777, 3777
0023 5777 K5777, 5777
0024 6777 K6777, 6777
0025 7377 K7377, 7377
0026 7577 K7577, 7577
0027 7677 K7677, 7677
0028 7737 K7737, 7737
0029 0
0030 7757 K7757, 7757
0031 7767 K7767, 7767
0032 7773 K7773, 7773
0033 7775 K7775, 7775
0034 7776 K7776, 7776
0035 K0, 0
0036 1777 K1777, 1777
0037 0777 K0777, 0777
0040 0377 K0377, 0377
0041 0177 K0177, 0177
0042 0077 K0077, 0077
0043 0037 K0037, 0037
0044 0017 K0017, 0017
0045 0007 K0007, 0007
0046 0003 K0003, 0003
0047 0
0050 0001 K0001, 0001
0051 4400 K4400, 4400
0052 4577 K4577, 4577
0053 2525 K2525, 2525
0054

0055 6666 K6666, 6666
 0056 4444 K4444, 4444
 0057 7070 K7070, 7070
 0060 0707 K0707, 0707
 0061 5252 K5252, 5252
 0062 1111 K1111, 1111
 0063 5555 K5555, 5555
 0064 5200 K5200, 5200
 0065 0004 K4, 4

0110 0110 *110 0
 0110 0000 0
 0172 0172 *172
 0172 0176 K176, 176
 0173 0172 K172, 172
 0174 0173 K173, 173
 0175 0174 K174, 174
 0176 0175 K175, 175
 0177 1234 K1234, 1234

/LOC 172
 /173
 /174
 /175
 /176
 /177

0200 0200 *200 /DCA TEST 1
 0200 7200 CLA
 0201 7410 SKP
 0202 0000 TP0, 0
 0203 1052 TAD K4400
 0204 3377 DCA TP177
 0205 7440 SZA
 0206 7402 HLT
 0207 7410 SKP
 0210 0000 0
 0211 1052 TAD K4400
 0212 7041 CIA
 0213 1377 TAD TP177
 0214 7440 SZA
 0215 7402 HLT

/DCA DID NOT CLEAR AC

/AC=- (400)

/DCA FAILED
 /AC SHOULD EQUAL ZERO

/DCA TEST 2

0216 7200 CLA
 0217 1053 TAD K4577
 0220 3202 DCA TP0
 0221 7440 SZA
 0222 7402 HLT
 0223 1053 TAD K4577
 0224 7041 CIA
 0225 1202 TAD TP0
 0226 7440 SZA
 0227 7402 HLT

/DCA DID NOT CLEAR AC

/DCA FAILED

/DCA TEST 3

0230	7200	CLA	
0231	1020	TAD	K7777
0232	3202	DCA	TP0
0233	7440	SZA	
0234	7402	HLT	
0235	1202	TAD	TP0
0236	7040	CMA	
0237	7440	SZA	
0240	7402	HLT	

/DCA DID NOT CLEAR AC

/DCA FAILED
/AC SHOULD BE ZERO

/DCA TEST 4

0241	7200	CLA	
0242	1036	TAD	K0
0243	3202	DCA	TP0
0244	7440	SZA	
0245	7402	HLT	
0246	1202	TAD	TP0
0247	7440	SZA	
0250	7402	HLT	

/DCA DID NOT CLEAR AC

/DCA FAILED
/AC SHOULD BE ZERO

/DCA TEST 5

0251	7200	CLA	
0252	1054	TAD	K2525
0253	3202	DCA	TP0
0254	7440	SZA	
0255	7402	HLT	
0256	1054	TAD	K2525
0257	7041	CIA	
0260	1202	TAD	TP0
0261	7440	SZA	
0262	7402	HLT	

/DCA DID NOT CLEAR AC

/DCA FAILED
/AC SHOULD BE ZERO

/DCA TEST 6

0263	7200	CLA	
0264	1055	TAD	K6666
0265	3202	DCA	TP0
0266	7440	SZA	
0267	7402	HLT	
0270	1055	TAD	K6666
0271	7041	CIA	
0272	1202	TAD	TP0
0273	7440	SZA	
0274	7402	HLT	

/DCA DID NOT CLEAR AC

/DCA FAILED
/AC SHOULD BE ZERO

/DCA TEST 7

0275	7200	CLA	
0276	1056	TAD K4444	
0277	3377	DCA TP177	
0300	7440	SZA	
0301	7402	HLT	
0302	1056	TAD K4444	
0303	7041	CIA	
0304	1377	TAD TP177	
0305	7440	SZA	
0306	7402	HLT	

/DCA DID NOT CLEAR AC

/DCA FAILED
 /AC SHOULD BE ZERO

/DCA TEST 8

0307	7200	CLA	
0310	1057	TAD K7070	
0311	3377	DCA TP177	
0312	7440	SZA	
0313	7402	HLT	
0314	1057	TAD K7070	
0315	7041	CIA	
0316	1377	TAD TP177	
0317	7440	SZA	
0320	7402	HLT	

/DCA DID NOT CLEAR AC

/DCA FAILED
 /AC SHOULD BE ZERO

/DCA TEST 9

0321	7200	CLA	
0322	1060	TAD K0707	
0323	3000	DCA 0	
0324	7440	SZA	
0325	7402	HLT	
0326	1060	TAD K0707	
0327	7041	CIA	
0330	1000	TAD 0	
0331	7440	SZA	
0332	7402	HLT	

/DCA DID NOT CLEAR AC

/DCA FAILED
 /AC SHOULD BE ZERO

/DCA TEST 10

0333	7200	CLA	
0334	1001	TAD K5252	
0335	3000	DCA 0	
0336	7440	SZA	
0337	7402	HLT	
0340	1001	TAD K5252	
0341	7041	CIA	
0342	1000	TAD 2	
0343	7440	SZA	
0344	7402	HLT	

/DCA DID NOT CLEAR AC

/DCA FAILED
 /AC SHOULD BE ZERO

/DCA TEST 11

0345	7200	CLA	
0346	1002	TAD K1111	
0347	3000	DCA 0	
0350	7440	SZA	
0351	7402	HLT	/DCA DID NOT CLEAR AC
0352	1002	TAD K1111	
0353	7041	CIA	
0354	1000	TAD 0	
0355	7400	SZA	
0356	7402	HLT	/DCA FAILED

/DCA TEST 12

0357	7200	CLA	
0360	1003	TAD K5555	
0361	3000	DCA 0	
0362	7440	SZA	
0363	7402	HLT	/DCA DID NOT CLEAR AC
0364	1003	TAD K5555	
0365	7041	CIA	
0366	1000	TAD 0	
0367	7440	SZA	
0370	7402	HLT	/DCA FAILED

/AC SHOULD BE ZERO

0371	7000	NOP	
0372	7000	NOP	
0373	7000	NOP	
0374	7000	NOP	
0375	7000	NOP	
0376	7410	SKP	
0377	0000		

TP177, 0

*400

/INDIRECT ADDRESSING TEST 1

0400	7200	CLA	
0401	1442	TAD I K0177	/OPERAND=1234
0402	7041	CIA	
0403	1177	TAD K1234	
0404	7440	SZA	
0405	7402	HLT	/TAD INDIRECT FAILED

/AC SHOULD BE ZERO

/INDIRECT ADDRESSING TEST 2

0406	7200	CLA	
0407	7410	SKP	
0410	0000	0	

0411 1020	TAD K7777	
0412 0442	AND I K0177	/OPERAND=1234
0413 7041	CLA	
0414 1177	TAD K1234	
0415 7440	SZA	/AND INDIRECT FAILED
0416 7402	HLT	/AC SHOULD BE ZERO

/INDIRECT ADDRESSING TEST 3

0417 7200	CLA	
0420 1020	TAD K7777	
0421 3000	DCA 0	
0422 2436	ISZ I K0	/ISZ FAILED. NO SKIP
0423 7402	HLT	
0424 1000	TAD 0	
0425 7440	SZA	/ISZ INDIRECT FAILED
0426 7402	HLT	/AC SHOULD BE 0

/INDIRECT ADDRESSING TEST 4

0427 7200	CLA	
0430 1572	TAD I K176	/OPERAND=175
0431 7041	CLA	
0432 1176	TAD K175	
0433 7440	SZA	/TAD INDIRECT FAILED
0434 7402	HLT	/AC SHOULD BE ZERO

/INDIRECT ADDRESSING TEST 5

0435 7200	CLA	
0436 1020	TAD K7777	
0437 0572	AND I K176	/OPERAND=175
0440 7041	CLA	
0441 1176	TAD K175	
0442 7440	SZA	/AND INDIRECT FAILED
0443 7402	HLT	/AC SHOULD BE ZERO

/INDIRECT ADDRESSING TEST 6

0444 7200	CLA	
0445 1172	TAD K176	
0446 3000	DCA 0	
0447 2436	ISZ I K0	/ISZ SKIPPED ILLEGALLY
0450 7410	SKP	
0451 7402	HLT	
0452 1000	TAD 0	
0453 7041	CLA	
0454 1172	TAD K176	
0455 7040	CMA	
0456 7440	SZA	/DCA INDIRECT FAILED
0457 7402	HLT	

/AC SHOULD BE ZERO

/INDIRECT ADDRESSING TEST 7

0460	7200	CLA	
0461	1573	TAD I K172	/OPERAND=176
0462	7041	CLA	
0463	1172	TAD K176	
0464	7440	SZA	
0465	7402	HLT	

/TAD INDIRECT FAILED
/AC SHOULD BE ZERO

/INDIRECT ADDRESSING TEST 8

0466	7200	CLA	
0467	1020	TAD K7777	
0470	0573	AND I K172	/OPERAND=176
0471	7041	CLA	
0472	1172	TAD K176	
0473	7440	SZA	
0474	7402	HLT	

/AND INDIRECT FAILED
/AC SHOULD BE ZERO

/INDIRECT ADDRESSING TEST 9

0475	7200	CLA	
0476	1173	TAD K172	
0477	3000	DCA 0	
0500	2436	ISZ I K0	
0501	7410	SKP	
0502	7402	HLT	
0503	1000	TAD 0	
0504	7041	CLA	
0505	1173	TAD K172	
0506	7040	CMA	
0507	7440	SZA	
0510	7402	HLT	

/ISZ SKIPPED ILLEGALLY

/DCA INDIRECT FAILED
/AC SHOULD BE ZERO

/INDIRECT ADDRESSING TEST 10

0511	7200	CLA	
0512	1574	TAD I K173	/OPERAND=172
0513	7041	CLA	
0514	1173	TAD K172	
0515	7440	SZA	
0516	7402	HLT	

/TAD INDIRECT FAILED
/AC SHOULD BE ZERO

/INDIRECT ADDRESSING TEST 11

0517	7200	CLA	
0520	1020	TAD K7777	
0521	0574	AND I K173	/OPERAND=172
0522	7041	CLA	


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0523 1173      TAD K172
0524 7440      SZA
0525 7402      HLT

/INDIRECT ADDRESSING TEST 12

0526 7200      CLA
0527 1174      TAD K173
0530 3000      DCA 0
0531 2436      ISZ I K0
0532 7410      SKP
0533 7402      HLT
0534 1000      TAD 0
0535 7041      CIA
0536 1174      TAD K173
0537 7040      CMA
0540 7440      SZA
0541 7402      HLT

/ISZ SKIPPED ILLEGALLY

/DCA INDIRECT FAILED
/AC SHOULD BE ZERO

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/INDIRECT ADDRESSING TEST 13

0542 7200      CLA
0543 1575      TAD I K174
0544 7041      CIA
0545 1174      TAD K173
0546 7440      SZA
0547 7402      HLT

/OPERAND=173

/TAD INDIRECT FAILED
/AC SHOULD BE ZERO

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/INDIRECT ADDRESSING TEST 14

0550 7200      CLA
0551 1020      TAD K7777
0552 0575      AND I K174
0553 7041      CIA
0554 1174      TAD K173
0555 7440      SZA
0556 7402      HLT

/OPERAND=173

/AND INDIRECT FAILED
/AC SHOULD BE ZERO

```

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/INDIRECT ADDRESSING TEST 15

0557 7200      CLA
0558 1175      TAD K174
0561 3000      DCA 0
0562 2436      ISZ I K0
0563 7410      SKP
0564 7402      HLT
0565 1000      TAD 0
0566 7041      CIA
0567 1175      TAD K174
0570 7040      CMA
0571 7440      SZA
0572 7402      HLT

/ISZ SKIPPED ILLEGALLY

/DCA INDIRECT FAILED

```

/AC SHOULD BE ZERO

0573 5377 JMP ,+4
0574 7000 NOP
0575 7000 NOP
0576 7000 NOP
0577 7000 NOP

*600
/INDIRECT ADDRESSING TEST 16

0600 7200 CLA
0601 1576 TAD I K175
0602 7041 CIA
0603 1175 TAD K174
0604 7440 SZA
0605 7402 HLT
/OPERAND=174
/TAD INDIRECT FAILED
/AC SHOULD BE ZERO

/AUTO INDEX TEST 1

0606 7200 CLA
0607 1036 TAD K0
0610 3010 DCA 10
0611 0410 AND I 10
0612 1010 TAD 10
0613 1035 TAD K7776
0614 7040 CMA
0615 7440 SZA
0616 7402 HLT
/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 2

0617 7200 CLA
0620 1035 TAD K7776
0621 3010 DCA 10
0622 0410 AND I 10
0623 1010 TAD 10
0624 1036 TAD K0
0625 7040 CMA
0626 7440 SZA
0627 7402 HLT
/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 3

0630 7200 CLA
0631 1034 TAD K7775
0632 3010 DCA 10
0633 3410 DCA I 10
0634 1010 TAD 10
0635 1051 TAD K0001
0636 7040 CMA
0637 7440 SZA
0640 7402 HLT
/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 4

0641	7200	CLA		
0642	1033	TAD K7773	/CONSTANT TO BE INDEXED	
0643	3010	DCA 10	/DO AUTO INDEX	
0644	1410	TAD I 10		
0645	7200	CLA		
0646	1010	TAD 10	/AC SHOULD EQUAL 7777	
0647	1047	TAD K0003		
0650	7040	CMA	/AC SHOULD BE ZERO	
0651	7440	SZA	/AUTO INDEX ERROR	
0652	7402	HLT		

/AUTO INDEX TEST 5

0653	7200	CLA		
0654	1032	TAD K7767	/CONSTANT TO BE INDEXED	
0655	3010	DCA 10	/DO AUTO INDEX	
0656	0410	AND I 10		
0657	1010	TAD 10	/AC SHOULD EQUAL 7777	
0660	1046	TAD K0007		
0661	7040	CMA	/AC SHOULD BE ZERO	
0662	7440	SZA	/AUTO INDEX ERROR	
0663	7402	HLT		

/AUTO INDEX TEST 6

0664	7200	CLA		
0665	1031	TAD K7757	/CONSTANT TO BE INDEXED	
0666	3010	DCA 10	/DO AUTO INDEX	
0667	0410	AND I 10		
0670	1010	TAD 10	/AC SHOULD EQUAL 7777	
0671	1045	TAD K0017		
0672	7040	CMA	/AC SHOULD BE ZERO	
0673	7440	SZA	/AUTO INDEX ERROR	
0674	7402	HLT		

/AUTO INDEX TEST 7

0675	7200	CLA		
0676	1027	TAD K7737	/CONSTANT TO BE INDEXED	
0677	3010	DCA 10	/DO AUTO INDEX	
0700	0410	AND I 10		
0701	1010	TAD 10	/AC SHOULD EQUAL 7777	
0702	1044	TAD K0037		
0703	7040	CMA	/AC SHOULD BE ZERO	
0704	7440	SZA	/AUTO INDEX ERROR	
0705	7402	HLT		

/AUTO INDEX TEST 8

0706	7200	CLA		
0707	1026	TAD K7677	/CONSTANT TO BE INDEXED	
0710	3010	DCA 10	/DO AUTO INDEX	
0711	0410	AND I 10		

```

0712 1010      TAD 10
0713 1043      TAD K0077
0714 7040      CMA
0715 7440      SZA
0716 7402      HLT

```

/AC SHOULD BE ZERO 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

/AUTO INDEX TEST 9
0717 7200      CLA
0720 1025      TAD K7577
0721 3010      DCA 10
0722 0410      AND I 10
0723 1010      TAD 10
0724 1042      TAD K0177
0725 7040      CMA
0726 7440      SZA
0727 7402      HLT

```

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

/AUTO INDEX TEST 10
0730 7200      CLA
0731 1024      TAD K7377
0732 3010      DCA 10
0733 0410      AND I 10
0734 1010      TAD 10
0735 1041      TAD K0377
0736 7040      CMA
0737 7440      SZA
0740 7402      HLT

```

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

/AUTO INDEX TEST 11
0741 7200      CLA
0742 1023      TAD K6777
0743 3010      DCA 10
0744 0410      AND I 10
0745 1010      TAD 10
0746 1040      TAD K0777
0747 7040      CMA
0750 7440      SZA
0751 7402      HLT

```

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

/AUTO INDEX TEST 12
0752 7200      CLA
0753 1022      TAD K5777
0754 3010      DCA 10
0755 2410      ISZ I 10
0756 7000      NOP
0757 1010      TAD 10
0760 1037      TAD K1777
0761 7040      CMA
0762 7440      SZA
0763 7402      HLT

```

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 13

0764	7200	CLA		
0765	1021	TAD K3777		/CONSTANT TO BE INDEXED
0766	3010	DCA 10		/DO AUTO INDEX
0767	0410	AND I 10		/AC SHOULD EQUAL 7777
0770	1010	TAD 10		
0771	1021	TAD K3777		
0772	7040	CMA		
0773	7440	SZA		/AC SHOULD BE ZERO
0774	7402	HLT		/AUTO INDEX ERROR
0775	7000	NOP		
0776	7000	NOP		
0777	7000	NOP		

1000 *1000

/AUTO INDEX TEST 14

1000	7200	CLA		
1001	1020	TAD K7777		/CONSTANT TO BE INDEXED
1002	3010	DCA 10		/DO AUTO INDEX
1003	0410	AND I 10		/AC SHOULD EQUAL 7777
1004	1010	TAD 10		
1005	1020	TAD K7777		
1006	7040	CMA		
1007	7410	SKP		
1010	0000	0		/AC SHOULD BE ZERO
1011	7440	SZA		/AUTO INDEX ERROR
1012	7402	HLT		

/AUTO INDEX TEST 15

1013	7200	CLA		
1014	1036	TAD K0		/CONSTANT TO BE INDEXED
1015	3011	DCA 11		/DO AUTO INDEX
1016	0411	AND I 11		/AC SHOULD EQUAL 7777
1017	1011	TAD 11		
1020	1035	TAD K7776		
1021	7040	CMA		
1022	7440	SZA		/AC SHOULD BE ZERO
1023	7402	HLT		/AUTO INDEX ERROR

/AUTO INDEX TEST 16

1024	7200	CLA		
1025	1035	TAD K7776		/CONSTANT TO BE INDEXED
1026	3011	DCA 11		/DO AUTO INDEX
1027	0411	AND I 11		/AC SHOULD EQUAL 7777
1030	1011	TAD 11		
1031	1036	TAD K0		
1032	7040	CMA		

1033 7440
1034 7402

SCA
HLT

/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 17

1035 7200
1036 1034
1037 3011
1040 3411
1041 1011
1042 1051
1043 7040
1044 7440
1045 7402

CLA
TAD K7775
DCA 11
DCA I 11
TAD 11
TAD K0001
CMA
SCA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777

/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 18

1046 7200
1047 1033
1050 3011
1051 1411
1052 7200
1053 1011
1054 1047
1055 7040
1056 7440
1057 7402

CLA
TAD K7773
DCA 11
TAD I 11
CLA
TAD 11
TAD K0003
CMA
SCA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX

/AC SHOULD EQUAL 7777

/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 19

1060 7200
1061 1032
1062 3011
1063 0411
1064 1011
1065 1046
1066 7040
1067 7440
1070 7402

CLA
TAD K7767
DCA 11
AND I 11
TAD 11
TAD K0007
CMA
SCA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX

/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 20

1071 7200
1072 1031
1073 3011
1074 0411
1075 1011
1076 1045
1077 7040
1100 7440
1101 7402

CLA
TAD K7757
DCA 11
AND I 11
TAD 11
TAD K0017
CMA
SCA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777

/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 21

1102 7200
1103 1027
1104 3011

CLA
TAD K7737
DCA 11

/CONSTANT TO BE INDEXED


```

1105 0411      AND I 11
1106 1011      TAD 11
1107 1044      TAD K0037
1110 7040      CMA
1111 7440      SZA
1112 7402      HLT

/AUTO INDEX TEST 22
1113 7200      CLA
1114 1026      TAD K7677
1115 3011      DCA 11
1116 0411      AND I 11
1117 1011      TAD 11
1120 1043      TAD K0077
1121 7040      CMA
1122 7440      SZA
1123 7402      HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO
/AUTO INDEX ERROR
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

1124 7200      CLA
1125 1025      TAD K7577
1126 3011      DCA 11
1127 0411      AND I 11
1130 1011      TAD 11
1131 1042      TAD K0177
1132 7040      CMA
1133 7440      SZA
1134 7402      HLT

/AUTO INDEX TEST 23
/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO
/AUTO INDEX ERROR
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

1135 7200      CLA
1136 1024      TAD K7377
1137 3011      DCA 11
1140 0411      AND I 11
1141 1011      TAD 11
1142 1041      TAD K0377
1143 7040      CMA
1144 7440      SZA
1145 7402      HLT

/AUTO INDEX TEST 24
/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO
/AUTO INDEX ERROR
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

1146 7200      CLA
1147 1023      TAD K6777
1150 3011      DCA 11
1151 0411      AND I 11
1152 1011      TAD 11
1153 1040      TAD K0777
1154 7040      CMA
1155 7440      SZA
1156 7402      HLT

/AUTO INDEX TEST 25
/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO
/AUTO INDEX ERROR
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

1157 7200      CLA
1160 1022      TAD K5777

/CONSTANT TO BE INDEXED

```

1161	3011	DCA 11	
1162	2411	ISZ I 11	/DO AUTO INDEX
1163	7000	NOP	
1164	1011	TAD 11	
1165	1037	TAD K1777	/AC SHOULD EQUAL 7777
1166	7040	CMA	
1167	7440	SZA	/AC SHOULD BE ZERO
1170	7402	HLT	/AUTO INDEX ERROR
1171	7000	NOP	
1172	5376	JMP .+4	
1173	7000	NOP	
1174	7000	NOP	
1175	7000	NOP	
1176	7000	NOP	
1177	7000	NOP	

PAUSE

/TEST 2 - TAPE 2			
1200	*1200		
/AUTO INDEX TEST 27			
1200	7200	CLA	/CONSTANT TO BE INDEXED
1201	1021	TAD K3777	
1202	3011	DCA 11	/DO AUTO INDEX
1203	0411	AND I 11	
1204	1011	TAD 11	/AC SHOULD EQUAL 7777
1205	1021	TAD K3777	
1206	7040	CMA	
1207	7440	SZA	/AC SHOULD BE ZERO
1210	7402	HLT	/AUTO INDEX ERROR

/AUTO INDEX TEST 28			
1211	7200	CLA	/CONSTANT TO BE INDEXED
1212	1020	TAD K7777	
1213	3011	DCA 11	/DO AUTO INDEX
1214	0411	AND I 11	
1215	1011	TAD 11	/AC SHOULD EQUAL 7777
1216	1020	TAD K7777	
1217	7040	CMA	
1220	7440	SZA	/AC SHOULD BE ZERO
1221	7402	HLT	/AUTO INDEX ERROR

/AUTO INDEX TEST 29			
1222	7200	CLA	/CONSTANT TO BE INDEXED
1223	1036	TAD K0	
1224	3012	DCA 12	/DO AUTO INDEX
1225	0412	AND I 12	
1226	1012	TAD 12	/AC SHOULD EQUAL 7777
1227	1035	TAD K7776	
1230	7040	CMA	


```

1231 7440      SZA
1232 7402      HLT

/AUTO INDEX TEST 30
1233 7200      CLA
1234 1035      TAD K7776
1235 3012      DCA 12
1236 0412      AND I 12
1237 1012      TAD 12
1240 1036      TAD K0
1241 7040      CMA
1242 7440      SZA
1243 7402      HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

/AUTO INDEX TEST 31
1244 7200      CLA
1245 1034      TAD K7775
1246 3012      DCA 12
1247 3412      DCA I 12
1250 1012      TAD 12
1251 1051      TAD K0001
1252 7040      CMA
1253 7440      SZA
1254 7402      HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

/AUTO INDEX TEST 32
1255 7200      CLA
1256 1033      TAD K7773
1257 3012      DCA 12
1260 1412      TAD I 12
1261 7200      CLA
1262 1012      TAD 12
1263 1047      TAD K0003
1264 7040      CMA
1265 7440      SZA
1266 7402      HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

/AUTO INDEX TEST 33
1267 7200      CLA
1270 1032      TAD K7767
1271 3012      DCA 12
1272 0412      AND I 12
1273 1012      TAD 12
1274 1046      TAD K0007
1275 7040      CMA
1276 7440      SZA
1277 7402      HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

/AUTO INDEX TEST 34
1300 7202      CLA
1301 1031      TAD K7757
1302 3012      DCA 12
1303 0412      AND I 12

/CONSTANT TO BE INDEXED
/DO AUTO INDEX

```


1304 1012	TAD 12		
1305 1045	TAD K0017	/AC SHOULD EQUAL 7777	
1306 7040	CMA		
1307 7440	SZA	/AC SHOULD BE ZERO	
1310 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 35			
1311 7200	CLA	/CONSTANT TO BE INDEXED	
1312 1027	TAD K7737		
1313 3012	DCA 12	/DO AUTO INDEX	
1314 0412	AND I 12		
1315 1012	TAD 12	/AC SHOULD EQUAL 7777	
1316 1044	TAD K0037		
1317 7040	CMA		
1320 7440	SZA	/AC SHOULD BE ZERO	
1321 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 36			
1322 7200	CLA	/CONSTANT TO BE INDEXED	
1323 1026	TAD K7677		
1324 3012	DCA 12	/DO AUTO INDEX	
1325 0412	AND I 12		
1326 1012	TAD 12	/AC SHOULD EQUAL 7777	
1327 1043	TAD K0077		
1330 7040	CMA		
1331 7440	SZA	/AC SHOULD BE ZERO	
1332 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 37			
1333 7200	CLA	/CONSTANT TO BE INDEXED	
1334 1025	TAD K7577		
1335 3012	DCA 12	/DO AUTO INDEX	
1336 0412	AND I 12		
1337 1012	TAD 12	/AC SHOULD EQUAL 7777	
1340 1042	TAD K0177		
1341 7040	CMA		
1342 7440	SZA	/AC SHOULD BE ZERO	
1343 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 38			
1344 7200	CLA	/CONSTANT TO BE INDEXED	
1345 1024	TAD K7377		
1346 3012	DCA 12	/DO AUTO INDEX	
1347 0412	AND I 12		
1350 1012	TAD 12	/AC SHOULD EQUAL 7777	
1351 1041	TAD K0377		
1352 7040	CMA		
1353 7440	SZA	/AC SHOULD BE ZERO	
1354 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 39			
1355 7200	CLA	/CONSTANT TO BE INDEXED	
1356 1023	TAD K6777		
1357 3012	DCA 12		

1360 0412	AND I 12		
1361 1012	TAD 12	/DO AUTO INDEX	
1362 1040	TAD K0777	/AC SHOULD EQUAL 7777	
1363 7040	CMA		
1364 7440	SZA	/AC SHOULD BE ZERO	
1365 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 40			
1366 7200	CLA		
1367 1022	TAD K5777	/CONSTANT TO BE INDEXED	
1370 5012	DCA 12		
1371 2412	ISZ I 12	/DO AUTO INDEX	
1372 7000	NOP		
1373 1012	TAD 12	/AC SHOULD EQUAL 7777	
1374 1037	TAD K1777		
1375 7040	CMA		
1376 7440	SZA	/AC SHOULD BE ZERO	
1377 7402	HLT	/AUTO INDEX ERROR	
*1400			
1400	/AUTO INDEX TEST 41		
1400 7200	CLA		
1401 1021	TAD K3777	/CONSTANT TO BE INDEXED	
1402 5012	DCA 12		
1403 0412	AND I 12	/DO AUTO INDEX	
1404 1012	TAD 12	/AC SHOULD EQUAL 7777	
1405 1021	TAD K3777		
1406 7040	CMA		
1407 7440	SZA	/AC SHOULD BE ZERO	
1410 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 42			
1411 7200	CLA		
1412 1020	TAD K7777	/CONSTANT TO BE INDEXED	
1413 5012	DCA 12		
1414 0412	AND I 12	/DO AUTO INDEX	
1415 1012	TAD 12	/AC SHOULD EQUAL 7777	
1416 1020	TAD K7777		
1417 7040	CMA		
1420 7440	SZA	/AC SHOULD BE ZERO	
1421 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 43			
1422 7200	CLA		
1423 1036	TAD K0	/CONSTANT TO BE INDEXED	
1424 5013	DCA 13		
1425 0413	AND I 13	/DO AUTO INDEX	
1426 1013	TAD 13	/AC SHOULD EQUAL 7777	
1427 1035	TAD K7776		
1430 7040	CMA		
1431 7440	SZA	/AC SHOULD BE ZERO	
1432 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 44			

```

1433 7200      CLA      K7776
1434 1035      TAD      K7776
1435 3013      DCA      13
1436 0413      AND      I 13
1437 1013      TAD      13
1438 1036      TAD      K0
1439 1040      CMA
1440 7040      SZA
1441 7440      HLT
1442 7402
1443 7402

```

```

1444 7200      /AUTO INDEX TEST 45
1445 1034      CLA
1446 3013      TAD      K7775
1447 3413      DCA      13
1448 1013      AND      I 13
1449 1036      TAD      13
1450 1040      TAD      K0001
1451 7040      CMA
1452 7440      SZA
1453 7402      HLT
1454 7402

```

```

1455 7200      /AUTO INDEX TEST 46
1456 1033      CLA
1457 3013      TAD      K7773
1458 1413      DCA      13
1459 1200      TAD      I 13
1460 1013      CLA
1461 1036      TAD      13
1462 1040      TAD      K0003
1463 7040      CMA
1464 7440      SZA
1465 7402      HLT
1466 7402

```

```

1467 7200      /AUTO INDEX TEST 47
1468 1032      CLA
1469 3013      TAD      K7767
1470 0413      DCA      13
1471 1013      AND      I 13
1472 1036      TAD      13
1473 1040      TAD      K0007
1474 7040      CMA
1475 7440      SZA
1476 7402      HLT
1477 7402

```

```

1500 7200      /AUTO INDEX TEST 48
1501 1031      CLA
1502 3013      TAD      K7757
1503 0413      DCA      13
1504 1013      AND      I 13
1505 1036      TAD      13
1506 1040      TAD      K0017
1507 7040      CMA
1508 7440      SZA
1509 7402      HLT
1510 7402

```



```

1511 7200 /AUTO INDEX TEST 49
1512 1027 CLA
1513 3013 TAD K7737
1514 0413 DCA 13
1515 1013 AND I 13
1516 1044 TAD 13
1517 7040 TAD K0037
1520 7440 CMA
1521 7402 SZA
1522 7402 HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

1522 7200 /AUTO INDEX TEST 50
1523 1026 CLA
1524 3013 TAD K7677
1525 0413 DCA 13
1526 1013 AND I 13
1527 1043 TAD 13
1530 7040 TAD K0077
1531 7440 CMA
1532 7402 SZA
1533 7402 HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

1533 7200 /AUTO INDEX TEST 51
1534 1025 CLA
1535 3013 TAD K7577
1536 0413 DCA 13
1537 1013 AND I 13
1540 1042 TAD 13
1541 7040 TAD K0177
1542 7440 CMA
1543 7402 SZA
1544 7402 HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

1544 7200 /AUTO INDEX TEST 52
1545 1024 CLA
1546 3013 TAD K7377
1547 0413 DCA 13
1550 1013 AND I 13
1551 1041 TAD 13
1552 7040 TAD K0377
1553 7440 CMA
1554 7402 SZA
1555 7402 HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

1555 7200 /AUTO INDEX TEST 53
1556 1023 CLA
1557 3013 TAD K6777
1560 0413 DCA 13
1561 1013 AND I 13
1562 1040 TAD 13
1563 7040 TAD K0777
1564 7440 CMA
1565 7402 SZA

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO

```

```

1565 7402      HLT
                /AUTO INDEX TEST 54
1566 7200      CLA
1567 1022      TAD K5777
1570 3013      DCA 13
1571 2413      ISZ I 13
1572 7000      NOP
1573 1013      TAD 13
1574 1037      TAD K1777
1575 7040      CMA
1576 7440      SZA
1577 7402      HLT
                /CONSTANT TO BE INDEXED
                /DO AUTO INDEX
                /AC SHOULD EQUAL 7777
                /AC SHOULD BE ZERO
                /AUTO INDEX ERROR

```

```

1600          *1600
1600 7200      /AUTO INDEX TEST 55
1601 7200      CLA
1602 3013      TAD K3777
1603 0413      DCA 13
1604 1013      AND I 13
1605 1021      TAD 13
1606 7040      TAD K3777
1607 7440      CMA
1610 7402      SZA
                /CONSTANT TO BE INDEXED
                /DO AUTO INDEX
                /AC SHOULD EQUAL 7777
                /AC SHOULD BE ZERO
                /AUTO INDEX ERROR

```

```

1611 7200      /AUTO INDEX TEST 56
1612 1020      CLA
1613 3013      TAD K7777
1614 0413      DCA 13
1615 1013      AND I 13
1616 1020      TAD 13
1617 7040      TAD K7777
1620 7440      CMA
1621 7402      SZA
                /CONSTANT TO BE INDEXED
                /DO AUTO INDEX
                /AC SHOULD EQUAL 7777
                /AC SHOULD BE ZERO
                /AUTO INDEX ERROR

```

```

1622 7200      /AUTO INDEX TEST 57
1623 1036      CLA
1624 3014      TAD K0
1625 0414      DCA 14
1626 1014      AND I 14
1627 1035      TAD 14
1630 7040      TAD K7776
1631 7440      CMA
1632 7402      SZA
                /CONSTANT TO BE INDEXED
                /DO AUTO INDEX
                /AC SHOULD EQUAL 7777
                /AC SHOULD BE ZERO
                /AUTO INDEX ERROR

```

```

1633 7200      /AUTO INDEX TEST 58
1634 1035      CLA
1635 3014      TAD K7776
                /CONSTANT TO BE INDEXED
                DCA 14

```


1636 0414	AND I 14		
1637 1014	TAD 14	/DO AUTO INDEX	
1640 1036	TAD K0	/AC SHOULD EQUAL 7777	
1641 7040	CMA	/AC SHOULD BE ZERO	
1642 7440	SZA	/AUTO INDEX ERROR	
1643 7402	HLT		
/AUTO INDEX TEST 59			
1644 7200	CLA	/CONSTANT TO BE INDEXED	
1645 1034	TAD K7775	/DO AUTO INDEX	
1646 3014	DCA 14	/AC SHOULD EQUAL 7777	
1647 3414	DCA I 14	/AC SHOULD BE ZERO	
1650 1014	TAD 14	/AUTO INDEX ERROR	
1651 1051	TAD K0001		
1652 7040	CMA		
1653 7440	SZA		
1654 7402	HLT		
/AUTO INDEX TEST 60			
1655 7200	CLA	/CONSTANT TO BE INDEXED	
1656 1033	TAD K7773	/DO AUTO INDEX	
1657 3014	DCA 14	/AC SHOULD EQUAL 7777	
1660 1414	TAD I 14	/AC SHOULD BE ZERO	
1661 7200	CLA	/AUTO INDEX ERROR	
1662 1014	TAD 14		
1663 1047	TAD K0003		
1664 7040	CMA		
1665 7440	SZA		
1666 7402	HLT		
/AUTO INDEX TEST 61			
1667 7200	CLA	/CONSTANT TO BE INDEXED	
1670 1032	TAD K7767	/DO AUTO INDEX	
1671 3014	DCA 14	/AC SHOULD EQUAL 7777	
1672 0414	AND I 14	/AC SHOULD BE ZERO	
1673 1014	TAD 14	/AUTO INDEX ERROR	
1674 1046	TAD K0007		
1675 7040	CMA		
1676 7440	SZA		
1677 7402	HLT		
/AUTO INDEX TEST 62			
1700 7200	CLA	/CONSTANT TO BE INDEXED	
1701 1031	TAD K7757	/DO AUTO INDEX	
1702 3014	DCA 14	/AC SHOULD EQUAL 7777	
1703 0414	AND I 14	/AC SHOULD BE ZERO	
1704 1014	TAD 14	/AUTO INDEX ERROR	
1705 1045	TAD K0017		
1706 7040	CMA		
1707 7440	SZA		
1710 7402	HLT		
/AUTO INDEX TEST 63			
1711 7200	CLA		

1712	1027	TAD K7737	/CONSTANT TO BE INDEXED
1713	3014	DCA 14	
1714	0414	AND I 14	/DO AUTO INDEX
1715	1014	TAD 14	
1716	1044	TAD K0037	/AC SHOULD EQUAL 7777
1717	7040	CMA	
1720	7440	SZA	/AC SHOULD BE ZERO
1721	7402	HLT	/AUTO INDEX ERROR

/AUTO INDEX TEST 64

1722	7200	CLA		/CONSTANT TO BE INDEXED
1723	1026	TAD	K7677	
1724	3014	DCA	14	
1725	0414	AND	I 14	/DO AUTO INDEX
1726	1014	TAD	14	
1727	1043	TAD	K0077	/AC SHOULD EQUAL 7777
1730	7040	CMA		
1731	7400	SZA		/AC SHOULD BE ZERO
1732	7402	HLT		/AUTO INDEX ERROR

/AUTO INDEX TEST 65

1733	7200	CLA	K7577	/CONSTANT TO BE INDEXED
1734	1025	TAD	14	
1735	3014	DCA	14	
1736	0414	AND	I 14	/DO AUTO INDEX
1737	1014	TAD	14	
1740	1042	TAD	K0177	/AC SHOULD EQUAL 7777
1741	7040	CMA		
1742	7440	SZA		/AC SHOULD BE ZERO
1743	7402	HLT		/AUTO INDEX ERROR

/AUTO INDEX TEST 66

1744	7200	CLA			
1745	1024	TAD	K7377		/CONSTANT TO BE INDEXED
1746	3014	DCA	14		
1747	0414	AND	I 14		/DO AUTO INDEX
1750	1014	TAD	14		
1751	1041	TAD	K0377		/AC SHOULD EQUAL 7777
1752	7040	CMA			
1753	7440	SLA			/AC SHOULD BE ZERO
1754	7402	HLT			/AUTO INDEX ERROR

/AUTO INDEX TEST 67

1755	7200	CLA	/CONSTANT TO BE INDEXED
1756	1023	TAD K6777	
1757	3014	DCA 14	
1760	0414	AND I 14	/DO AUTO INDEX
1761	1014	TAD 14	
1762	1040	TAD K0777	/AC SHOULD EQUAL 7777
1763	7040	CMA	
1764	7440	HLA	/AC SHOULD BE ZERO
1765	7402	HLT	/AUTO INDEX ERROR

/AUTO INDEX TEST 68


```

1766 7200      CLA      K5777
1767 1022      TAD      K5777
1770 3014      DCA      14
1771 2414      ISZ      I 14
1772 7000      NOP
1773 1014      TAD      14
1774 1037      TAD      K1777
1775 7040      CMA
1776 7440      SZA
1777 7402      HLT

          /CONSTANT TO BE INDEXED
          /DO AUTO INDEX
          /AC SHOULD EQUAL 7777
          /AC SHOULD BE ZERO
          /AUTO INDEX ERROR

```

```

2000 *2000
      /AUTO INDEX TEST 69
2000 7200      CLA
2001 1021      TAD      K3777
2002 3014      DCA      14
2003 0414      AND      I 14
2004 1014      TAD      14
2005 1021      TAD      K3777
2006 7040      CMA
2007 7410      SKP
2010 0000      0
2011 7440      SZA
2012 7402      HLT

          /CONSTANT TO BE INDEXED
          /DO AUTO INDEX
          /AC SHOULD EQUAL 7777
          /AC SHOULD BE ZERO
          /AUTO INDEX ERROR

```

```

      /AUTO INDEX TEST 70
2013 7200      CLA
2014 1020      TAD      K7777
2015 3014      DCA      14
2016 0414      AND      I 14
2017 1014      TAD      14
2020 1020      TAD      K7777
2021 7040      CMA
2022 7440      SZA
2023 7402      HLT

          /CONSTANT TO BE INDEXED
          /DO AUTO INDEX
          /AC SHOULD EQUAL 7777
          /AC SHOULD BE ZERO
          /AUTO INDEX ERROR

```

```

      /AUTO INDEX TEST 71
2024 7200      CLA
2025 1036      TAD      K0
2026 3015      DCA      15
2027 0415      AND      I 15
2030 1015      TAD      15
2031 1035      TAD      K7776
2032 7040      CMA
2033 7440      SZA
2034 7402      HLT

          /CONSTANT TO BE INDEXED
          /DO AUTO INDEX
          /AC SHOULD EQUAL 7777
          /AC SHOULD BE ZERO
          /AUTO INDEX ERROR

```

```

      /AUTO INDEX TEST 72
2035 7200      CLA
2036 1035      TAD      K7776
2037 3015      DCA      15
2040 0415      AND      I 15
2041 1015      TAD      15
2042 1036      TAD      K0

          /CONSTANT TO BE INDEXED
          /DO AUTO INDEX
          /AC SHOULD EQUAL 7777

```



```

2043 7040 CMA
2044 7440 SZA
2045 7402 HLT

/AUTO INDEX TEST 73
2046 7200 CLA
2047 1034 TAD K7775
2050 3015 DCA 15
2051 3415 DCA I 15
2052 1015 TAD 15
2053 1051 TAD K0001
2054 7040 CMA
2055 7440 SZA
2056 7402 HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

/AUTO INDEX TEST 74
2057 7200 CLA
2060 1033 TAD K7773
2061 3015 DCA 15
2062 1415 TAD I 15
2063 7200 CLA
2064 1015 TAD 15
2065 1047 TAD K0003
2066 7040 CMA
2067 7440 SZA
2070 7402 HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

/AUTO INDEX TEST 75
2071 7200 CLA
2072 1032 TAD K7767
2073 3015 DCA 15
2074 0415 AND I 15
2075 1015 TAD 15
2076 1046 TAD K0007
2077 7040 CMA
2100 7440 SZA
2101 7402 HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

/AUTO INDEX TEST 76
2102 7200 CLA
2103 1031 TAD K7757
2104 3015 DCA 15
2105 0415 AND I 15
2106 1015 TAD 15
2107 1045 TAD K0017
2110 7040 CMA
2111 7440 SZA
2112 7402 HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD BE ZERO 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

```

```

/AUTO INDEX TEST 77
2113 7200 CLA
2114 1027 TAD K7737
2115 3015 DCA 15
2116 0415 AND I 15

/CONSTANT TO BE INDEXED
/DO AUTO INDEX

```

WAS BY INSTAL. (3014)

~~7756~~

(15) 77wo

2117 1015
2120 1044
2121 7040
2122 7440
2123 7402

TAD 15
TAD K0037
CMA
SZA
HLT

/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

7780
37
7774

2124 7200
2125 1026
2126 3015
2127 0415
2130 1015
2131 1043
2132 7040
2133 7440
2134 7402

/AUTO INDEX TEST 78
CLA
TAD K7677
DCA 15
AND I 15
TAD 15
TAD K0077
CMA
SZA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

7769
37
6027

2135 7200
2136 1025
2137 3015
2140 0415
2141 1015
2142 1042
2143 7040
2144 7440
2145 7402

/AUTO INDEX TEST 79
CLA
TAD K7577
DCA 15
AND I 15
TAD 15
TAD K0177
CMA
SZA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

2146 7200
2147 1024
2150 3015
2151 0415
2152 1015
2153 1041
2154 7040
2155 7440
2156 7402

/AUTO INDEX TEST 80
CLA
TAD K7377
DCA 15
AND I 15
TAD 15
TAD K0377
CMA
SZA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

2157 7200
2160 1023
2161 3015
2162 0415
2163 1015
2164 1040
2165 7040
2166 7440
2167 7402
2170 7000
2171 7000
2172 5376
2173 7000
2174 7000

/AUTO INDEX TEST 81
CLA
TAD K6777
DCA 15
AND I 15
TAD 15
TAD K0777
CMA
SZA
HLT
NOP
NOP
JMP .+4
NOP

/CONSTANT TO BE INDEXED
/DO AUTO INDEX
/AC SHOULD EQUAL 7777
/AC SHOULD BE ZERO
/AUTO INDEX ERROR

2175 7000	NOP		
2176 7000	NOP		
2177 7000	NOP		
2200	*2200	/AUTO INDEX TEST 82	
2200 7200	CLA		/CONSTANT TO BE INDEXED
2201 1022	TAD K5777		
2202 3015	DCA 15		/00 AUTO INDEX
2203 2415	ISZ I 15		
2204 7000	NOP		
2205 1015	TAD 15		/AC SHOULD EQUAL 7777
2206 1037	TAD K1777		
2207 7040	CMA		
2210 7440	SZA		/AC SHOULD BE ZERO
2211 7402	HLT		/AUTO INDEX ERROR
2212 7200	CLA		/CONSTANT TO BE INDEXED
2213 1021	TAD K3777		
2214 3015	DCA 15		/00 AUTO INDEX
2215 0415	AND I 15		
2216 1015	TAD 15		/AC SHOULD EQUAL 7777
2217 1021	TAD K3777		
2220 7040	CMA		
2221 7440	SZA		/AC SHOULD BE ZERO
2222 7402	HLT		/AUTO INDEX ERROR
2223 7200	CLA		/CONSTANT TO BE INDEXED
2224 1020	TAD K7777		
2225 3015	DCA 15		/00 AUTO INDEX
2226 0415	AND I 15		
2227 1015	TAD 15		/AC SHOULD EQUAL 7777
2230 1020	TAD K7777		
2231 7040	CMA		
2232 7440	SZA		/AC SHOULD BE ZERO
2233 7402	HLT		/AUTO INDEX ERROR
2234 7200	CLA		/CONSTANT TO BE INDEXED
2235 1036	TAD K0		
2236 3016	DCA 16		/00 AUTO INDEX
2237 0416	AND I 16		
2240 1016	TAD 16		/AC SHOULD EQUAL 7777
2241 1035	TAD K7776		
2242 7040	CMA		
2243 7440	SZA		/AC SHOULD BE ZERO
2244 7402	HLT		/AUTO INDEX ERROR
2245 7200	CLA		/CONSTANT TO BE INDEXED
2246 1035	TAD K7776		

2247 3016	DCA 16		
2250 0416	AND I 16	/DO AUTO INDEX	
2251 1016	TAD 16		
2252 1036	TAD K0	/AC SHOULD EQUAL 7777	
2253 7040	CMA		
2254 7440	SZA	/AC SHOULD BE ZERO	
2255 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 87			
2256 7200	CLA		
2257 1034	TAD K7775	/CONSTANT TO BE INDEXED	
2260 3016	DCA 16		
2261 3416	DCA I 16	/DO AUTO INDEX	
2262 1016	TAD 16		
2263 1051	TAD K0001	/AC SHOULD EQUAL 7777	
2264 7040	CMA		
2265 7440	SZA	/AC SHOULD BE ZERO	
2266 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 88			
2267 7200	CLA		
2270 1033	TAD K7773	/CONSTANT TO BE INDEXED	
2271 3016	DCA 16		
2272 1416	TAD I 16	/DO AUTO INDEX	
2273 7200	CLA		
2274 1016	TAD 16		
2275 1047	TAD K0003	/AC SHOULD EQUAL 7777	
2276 7040	CMA		
2277 7440	SZA	/AC SHOULD BE ZERO	
2300 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 89			
2301 7200	CLA		
2302 1032	TAD K7767	/CONSTANT TO BE INDEXED	
2303 3016	DCA 16		
2304 0416	AND I 16	/DO AUTO INDEX	
2305 1016	TAD 16		
2306 1046	TAD K0007	/AC SHOULD EQUAL 7777	
2307 7040	CMA		
2310 7440	SZA	/AC SHOULD BE ZERO	
2311 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 90			
2312 7200	CLA		
2313 1031	TAD K7757	/CONSTANT TO BE INDEXED	
2314 3016	DCA 16		
2315 0416	AND I 16	/DO AUTO INDEX	
2316 1016	TAD 16		
2317 1045	TAD K0017	/AC SHOULD EQUAL 7777	
2320 7040	CMA		
2321 7440	SZA	/AC SHOULD BE ZERO	
2322 7402	HLT	/AUTO INDEX ERROR	
/AUTO INDEX TEST 91			

```

2323 7200      CLA      K7737
2324 1027      TAD      K7737
2325 3016      DCA      16
2326 0416      AND      I 16
2327 1016      TAD      16
2330 1044      TAD      K0037
2331 7040      CMA
2332 7440      SZA
2333 7402      HLT

          /CONSTANT TO BE INDEXED
          /DO AUTO INDEX
          /AC SHOULD EQUAL 7777
          /AC SHOULD BE ZERO
          /AUTO INDEX ERROR

```

```

          /AUTO INDEX TEST 92
2334 7200      CLA
2335 1026      TAD      K7677
2336 3016      DCA      16
2337 0416      AND      I 16
2340 1016      TAD      16
2341 1043      TAD      K0077
2342 7040      CMA
2343 7440      SZA
2344 7402      HLT

          /CONSTANT TO BE INDEXED
          /DO AUTO INDEX
          /AC SHOULD EQUAL 7777
          /AC SHOULD BE ZERO
          /AUTO INDEX ERROR

```

```

          /AUTO INDEX TEST 93
2345 7200      CLA
2346 1025      TAD      K7577
2347 3016      DCA      16
2350 0416      AND      I 16
2351 1016      TAD      16
2352 1042      TAD      K0177
2353 7040      CMA
2354 7440      SZA
2355 7402      HLT

          /CONSTANT TO BE INDEXED
          /DO AUTO INDEX
          /AC SHOULD EQUAL 7777
          /AC SHOULD BE ZERO
          /AUTO INDEX ERROR

```

```

          /AUTO INDEX TEST 94
2356 7200      CLA
2357 1024      TAD      K7377
2360 3016      DCA      16
2361 0416      AND      I 16
2362 1016      TAD      16
2363 1041      TAD      K0377
2364 7040      CMA
2365 7440      SZA
2366 7402      HLT

          /CONSTANT TO BE INDEXED
          /DO AUTO INDEX
          /AC SHOULD EQUAL 7777
          /AC SHOULD BE ZERO
          /AUTO INDEX ERROR

```

```

          /AUTO INDEX TEST 95
2367 7200      CLA
2370 1023      TAD      K6777
2371 3016      DCA      16
2372 0416      AND      I 16
2373 1016      TAD      16
2374 1040      TAD      K0777
2375 7040      CMA
2376 7440      SZA
2377 7402      HLT

          /CONSTANT TO BE INDEXED
          /DO AUTO INDEX
          /AC SHOULD EQUAL 7777
          /AC SHOULD BE ZERO
          /AUTO INDEX ERROR

```


PAUSE

/TEST 2 - TAPE 3

2400 *2400

/AUTO INDEX TEST 96

2400 7200
2401 1022
2402 3016
2403 2416
2404 7000
2405 1016
2406 1037
2407 7040
2410 7440
2411 7402

CLA
TAD K5777
DCA 16
ISE I 16
NOP
TAD 16
TAD K1777
CMA
SZA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX

/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 97

2412 7200
2413 1021
2414 3016
2415 0416
2416 1016
2417 1021
2420 7040
2421 7440
2422 7402

CLA
TAD K3777
DCA 16
AND I 16
TAD 16
TAD K3777
CMA
SZA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX

/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 98

2423 7200
2424 1020
2425 3016
2426 0416
2427 1016
2430 1020
2431 7040
2432 7440
2433 7402

CLA
TAD K7777
DCA 16
AND I 16
TAD 16
TAD K7777
CMA
SZA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX

/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 99

2434 7200
2435 1036
2436 3017
2437 0417
2440 1017
2441 1035
2442 7040
2443 7440
2444 7402

CLA
TAD K0
DCA 17
AND I 17
TAD 17
TAD K7776
CMA
SZA
HLT

/CONSTANT TO BE INDEXED
/DO AUTO INDEX

/AC SHOULD BE ZERO
/AUTO INDEX ERROR

/AUTO INDEX TEST 100

2445	7200	CLA	/CONSTANT TO BE INDEXED
2446	1035	TAD K7776	
2447	3017	DCA 17	/DO AUTO INDEX
2450	0417	AND I 17	
2451	1017	TAD 17	
2452	1036	TAD K0	/AC SHOULD EQUAL 7777
2453	7040	CMA	
2454	7440	SZA	/AC SHOULD BE ZERO
2455	7402	HLT	/AUTO INDEX ERROR

/AUTO INDEX TEST 101

2456	7200	CLA	/CONSTANT TO BE INDEXED
2457	1034	TAD K7775	
2460	3017	DCA 17	/DO AUTO INDEX
2461	3417	DCA I 17	
2462	1017	TAD 17	
2463	1051	TAD K0001	/AC SHOULD EQUAL 7777
2464	7040	CMA	
2465	7440	SZA	/AC SHOULD BE ZERO
2466	7402	HLT	/AUTO INDEX ERROR

/AUTO INDEX TEST 102

2467	7200	CLA	/CONSTANT TO BE INDEXED
2470	1033	TAD K7773	
2471	3017	DCA 17	/DO AUTO INDEX
2472	1417	TAD I 17	
2473	7200	CLA	
2474	1017	TAD 17	/AC SHOULD EQUAL 7777
2475	1047	TAD K0003	
2476	7040	CMA	
2477	7440	SZA	/AC SHOULD BE ZERO
2500	7402	HLT	/AUTO INDEX ERROR

/AUTO INDEX TEST 103

2501	7200	CLA	/CONSTANT TO BE INDEXED
2502	1032	TAD K7767	
2503	3017	DCA 17	/DO AUTO INDEX
2504	0417	AND I 17	
2505	1017	TAD 17	
2506	1046	TAD K0007	/AC SHOULD EQUAL 7777
2507	7040	CMA	
2510	7440	SZA	/AC SHOULD BE ZERO
2511	7402	HLT	/AUTO INDEX ERROR

/AUTO INDEX TEST 104

2512	7200	CLA	/CONSTANT TO BE INDEXED
2513	1031	TAD K7757	
2514	3017	DCA 17	/DO AUTO INDEX
2515	0417	AND I 17	
2516	1017	TAD 17	
2517	1045	TAD K0017	/AC SHOULD EQUAL 7777
2520	7040	CMA	
2521	7440	SZA	/AC SHOULD BE ZERO


```

2522 7402      HLT
                /AUTO INDEX TEST 105
2523 7200      CLA
2524 1027      TAD K7737
2525 3017      DCA 17
2526 0417      AND I 17
2527 1017      TAD 17
2530 1044      TAD K0037
2531 7040      CMA
2532 7440      SZA
2533 7402      HLT
                /CONSTANT TO BE INDEXED
                /DO AUTO INDEX
                /AC SHOULD EQUAL 7777
                /AC SHOULD BE ZERO
                /AUTO INDEX ERROR

2534 7200      CLA
2535 1026      TAD K7677
2536 3017      DCA 17
2537 0417      AND I 17
2540 1017      TAD 17
2541 1043      TAD K0077
2542 7040      CMA
2543 7440      SZA
2544 7402      HLT
                /CONSTANT TO BE INDEXED
                /DO AUTO INDEX
                /AC SHOULD EQUAL 7777
                /AC SHOULD BE ZERO
                /AUTO INDEX ERROR

2545 7200      CLA
2546 1025      TAD K7577
2547 3017      DCA 17
2550 0417      AND I 17
2551 1017      TAD 17
2552 1042      TAD K0177
2553 7040      CMA
2554 7440      SZA
2555 7402      HLT
                /CONSTANT TO BE INDEXED
                /DO AUTO INDEX
                /AC SHOULD EQUAL 7777
                /AC SHOULD BE ZERO
                /AUTO INDEX ERROR

2556 7200      CLA
2557 1024      TAD K7377
2560 3017      DCA 17
2561 0417      AND I 17
2562 1017      TAD 17
2563 1041      TAD K0377
2564 7040      CMA
2565 7440      SZA
2566 7402      HLT
                /CONSTANT TO BE INDEXED
                /DO AUTO INDEX
                /AC SHOULD EQUAL 7777
                /AC SHOULD BE ZERO
                /AUTO INDEX ERROR

2567 7200      CLA
2570 1023      TAD K6777
2571 3017      DCA 17
2572 0417      AND I 17
2573 1017      TAD 17
2574 1040      TAD K0777
                /CONSTANT TO BE INDEXED
                /DO AUTO INDEX
                /AC SHOULD EQUAL 7777

```


2575 7040	CMA		
2576 7440	SZA	/AC SHOULD BE ZERO	
2577 7402	HLT	/AUTO INDEX ERROR	
2600	*2600		
	/AUTO INDEX TEST 110		
2600 7200	CLA		
2601 1022	TAD K5777	/CONSTANT TO BE INDEXED	
2602 3017	DCA 17		
2603 2417	ISZ I 17	/DO AUTO INDEX	
2604 7000	NOP		
2605 1017	TAD 17		
2606 1037	TAD K1777	/AC SHOULD EQUAL 7777	
2607 7040	CMA		
2610 7440	SZA	/AC SHOULD BE ZERO	
2611 7402	HLT	/AUTO INDEX ERROR	
2612 7200	CLA		
2613 1021	TAD K3777	/CONSTANT TO BE INDEXED	
2614 3017	DCA 17		
2615 0417	AND I 17	/DO AUTO INDEX	
2616 1017	TAD 17		
2617 1021	TAD K3777	/AC SHOULD EQUAL 7777	
2620 7040	CMA		
2621 7440	SZA	/AC SHOULD BE ZERO	
2622 7402	HLT	/AUTO INDEX ERROR	
2623 7200	CLA		
2624 1020	TAD K7777	/CONSTANT TO BE INDEXED	
2625 3017	DCA 17		
2626 0417	AND I 17	/DO AUTO INDEX	
2627 1017	TAD 17		
2630 1020	TAD K7777	/AC SHOULD EQUAL 7777	
2631 7040	CMA		
2632 7440	SZA	/AC SHOULD BE ZERO	
2633 7402	HLT	/AUTO INDEX ERROR	
2634 5236	JMP .+2		
2635 7402	HLT	/JMP FAILED	
2636 7410	SKP	/JMP WORKED (A LITTLE)	
2637 2644	2644		
2640 1237	TAD .-1		
2641 3010	DCA 10	/TEST INSTRUCTION	
2642 5410	JMP I 10	/JMP INDIRECT FAILED	
2643 7402	HLT	/LOCATION 2610. NO INDEX	
2644 7402	HLT	/IN DEFER STATE.	

2645	4247	/AUTO INDEX TEST 114	
2646	7402	JMS .+2	
2647	7402	HLT	/JMS FAILED
2650	1247	HLT	/JMS FAILED
2651	7410	TAD .-1	
2652	2646	SKP	
2653	7041	.-4	
2654	1252	CIA	
2655	7440	TAD .-2	
2656	7402	SZA	/WRONG ADDRESS STORED
		HLT	/DURING JMS
2657	7410	SKP	/JMS WORKS (I GUESS)
2660	2664	.+4	
2661	1260	TAD .-1	
2662	3010	DCA 10	
2663	4410	JMS I 10	/TEST INSTRUCTION
2664	7402	HLT	/JMS FAILED
2665	7402	HLT	/JMS FAILED
2666	1265	TAD .-1	
2667	7410	SKP	
2670	2664	.-4	
2671	7041	CIA	
2672	1270	TAD .-2	
2673	7440	SZA	
2674	7402	HLT	/WRONG ADDRESS STORED DURING JMS
2675	5676	JMP I .+1	/GO TO PROCESSOR IOT TESTS
2676	4200	PIOTST	
		/INTERRUPT TEST 1	
2677	4700	INTST, JMS I .+1	
2700	4011	STR	/SET PRINTER FLAG
2701	6040	SPF	
2702	6041	TSF	/SPF OR TSF FAILED
2703	7402	HLT	/FLAG IS ON
2704	7200	CLA	
2705	1313	TAD BACK1	
2706	3002	DCA 2	
2707	6001	ION	
2710	7000	NOP	/GO TO LOC 0000
2711	7402	HLT	/NO INTERRUPT
2712	2711	.-1	
2713	2714	.+1	/RETURN FROM LOC 1
2714	7440	SZA	/AC SHOULD BE 0
2715	7402	HLT	/CONFIDENCE CHECK
2716	1000	TAD 2	
2717	7041	CIA	
2720	1312	TAD OUT1	
2721	7640	SZA CLA	
2722	7402	HLT	/INTERRUPT ERROR
			/WRONG ADDRESS STORED

2723	6040	/INTERRUPT TEST 2	
2724	6041	SPF	/SET PRINTER FLAG
2725	7402	TSF	/SPF FAILED TO SET PRINTER FLAG
2726	7200	HLT	/FLAG IS ON
2727	1335	CLA	
2730	3002	TAD BACK3	
2731	6001	DCA 2	
2732	1020	ION	
2733	7402	TAD K7777	
2734	2733	HLT	/NO INTERRUPT
2735	2736	OUT3, .-1	
2736	7040	BACK3, .+1	
2737	7440	CMA	/RETURN FROM LOC1
2740	7402	SZA	/CONFIDENCE CHECK
		HLT	/AC SHOULD BE 0
2741	1000	TAD 0	
2742	7041	CIA	
2743	1334	TAD OUT3	
2744	7640	SZA CLA	
2745	7402	HLT	/INTERRUPT ERROR
			/WRONG ADDRESS STORED
2746	6040	/INTERRUPT TEST 3	
2747	6041	SPF	/SET PRINTER FLAG
2750	7402	TSF	/SPF FAILED TO SET PRINTER FLAG
2751	7200	HLT	/FLAG IS ON
2752	1301	CLA	
2753	3002	TAD BACK2	
2754	1020	DCA 2	
2755	6001	TAD K7777	
2756	0020	ION	
2757	7402	AND K7777	
2760	2757	HLT	/NO INTERRUPT
2761	2762	OUT2, .-1	
2762	7040	BACK2, .+1	
2763	7440	CMA	/RETURN FROM LOC1
2764	7402	SZA	/CONFIDENCE CHECK
		HLT	/AC SHOULD BE 0
2765	1000	TAD 0	
2766	7041	CIA	
2767	1300	TAD OUT2	
2770	7640	SZA CLA	
2771	7402	HLT	/INTERRUPT ERROR
2772	5773	JMP 1 .+1	/WRONG ADDRESS STORED
2773	3000		
3020	6040	/INTERRUPT TEST 4	
3021	6041	SPF	/SET PRINTER FLAG
		TSF	

3002 7402 HLT
 3003 7200 CLA
 3004 1213 TAD BACK4
 3005 3002 DCA 2
 3006 1020 TAD K7777
 3007 6001 ION
 3010 3003 DCA 3
 3011 7402 HLT
 3012 3011 OUT4,
 3013 3014 BACK4,
 3014 7440 *1
 3015 7402 HLT

/NO INTERRUPT
 /RETURN FROM LOC1
 /CONFIDENCE CHECK
 /AC SHOULD BE ZERO

3016 1003 TAD 3
 3017 7040 CMA
 3020 7440 SZA
 3021 7402 HLT

/DCA PRIOR TO INTERRUPT
 /FAILED
 /INTERRUPT ERROR
 /WRONG ADDRESS STORED

/SET PRINTER FLAG
 /SPF FAILED TO SET PRINTER FLAG
 /FLAG IS ON

/INTERRUPT TEST 5

3030 6040 SPF
 3031 6041 TSF
 3032 7402 HLT
 3033 7200 CLA
 3034 1244 TAD BACK5
 3035 3002 DCA 2
 3036 1035 TAD K7776

/NO INTERRUPT

/RETURN FROM LOC1
 /CONFIDENCE CHECK
 /AC SHOULD BE ZERO

/IS2 PRIOR TO
 /INTERRUPT FAILED

/INTERRUPT ERROR

3037 3003 DCA 3
 3040 6001 ION
 3041 2003 ISZ 3
 3042 7402 HLT
 3043 3042 OUT5,
 3044 3045 BACK5,
 3045 7440 *1
 3046 7402 HLT

3247 1003 TAD 3
 3050 7040 CMA
 3051 7440 SZA
 3052 7402 HLT

3053 3003 DCA 3
 3054 1000 TAD 0
 3055 7041 CIA
 3056 1243 TAD OUT5
 3057 7640 SZA CLA
 3060 7402 HLT

/INTERRUPT TEST 6

3061 6040
 3062 6041
 3063 7402
 3064 7200
 3065 1276
 3066 3002
 3067 1020
 3070 3003
 3071 6001
 3072 2003
 3073 7402
 3074 7402
 3075 3074
 3076 3077
 3077 7440
 3100 7402

/NO INTERRUPT

OUT6,
 BACK6,

/RETURN FROM LOC 1
 /CONFIDENCE CHECK
 /AC SHOULD BE ZERO

/IS2 PRIOR TO
 /INTERRUPT FAILED

/INTERRUPT ERROR
 /WRONG ADDRESS STORED

/INTERRUPT TEST 7

3112 6040
 3113 6041
 3114 7402
 3115 7200
 3116 1524
 3117 3002
 3120 6001
 3121 5321
 3122 7402
 3123 3121
 3124 3125
 3125 7440
 3126 7402

/NO INTERRUPT

OUT7,
 BACK7,

/RETURN FROM LOC 1
 /CONFIDENCE CHECK
 /AC SHOULD BE 0

/INTERRUPT ERROR
 /WRONG ADDRESS STORED

/INTERRUPT TEST 8

```

3134 6040      /SET PRINTER FLAG
3135 6041      /SPF FAILED TO SET PRINTER FLAG
3136 7402      /FLAG IS ON
3137 7200      CLA
3140 1346      TAD BACK8
3141 3002      DCA 2
3142 6001      ION
3143 4003      JMS 3
3144 7402      HLT
3145 3144      /NO INTERRUPT
3146 3147      /RETURN FROM LOC 1
3147 7440      /CONFIDENCE CHECK
3150 7402      /AC SHOULD BE ZERO

3151 1003      /JMS ERROR PRIOR
3152 7041      /TO INTERRUPT WRONG
3153 1345      /ADDRESS STORED
3154 7440
3155 7402

```

```

3156 1000      TAD 0
3157 7041      CIA
3160 1065      TAD K4
3161 7640      SZA CLA
3162 7402      HLT

3163 5/64      JMP I .+1
3164 3200

```

```

/INTERRUPT ERROR
/WRONG ADDRESS STORED

```

*3200 /INTERRUPT TEST 9

```

3200 6040      /SET PRINTER FLAG
3201 6041      /SPF FAILED TO SET PRINTER FLAG
3202 7402      /FLAG IS ON
3203 7200      CLA
3204 1213      TAD BACK9
3205 3002      DCA 2
3206 1020      TAD K7777
3207 6001      ION
3210 7200      CLA
3211 7402      /NO INTERRUPT
3212 3211      /RETURN FROM LOC 1
3213 3214      /CLA PRIOR TO INTERRUPT
3214 7440      /FAILED
3215 7402

3216 1000      TAD 0
3217 7041      CIA
3220 1212      TAD OUT9
3221 7640      SZA CLA

```

```

3222 7402      HLT

/INTERRUPT TEST 10
3223 6040      SPF
3224 6041      TSF
3225 7402      HLT
3226 7200      CLA
3227 1236      TAD BACK10
3230 3002      DCA 2
3231 6001      ION
3232 6041      TSF
3233 7402      HLT
3234 7402      HLT

```

```

3235 3234      OUT10, *-1
3236 3237      BACK10, *-1
3237 7440      SZA
3240 7402      HLT

3241 1000      TAD 0
3242 7041      CIA
3243 1235      TAD OUT10
3244 7640      SZA CLA
3245 7402      HLT

```

/RETURN FROM LOC 1
/CONFIDENCE CHECK
/AC SHOULD BE ZERO

/INTERRUPT TEST 11

```

3246 6040      SPF
3247 6041      TSF
3250 7402      HLT
3251 7200      CLA
3252 1311      TAD BACK11
3253 3002      DCA 2
3254 6001      ION
3255 6002      IOF
3256 6001      ION
3257 6002      IOF
3260 6001      ION
3261 6002      IOF
3262 6001      ION
3263 6002      IOF
3264 6001      ION
3265 6002      IOF
3266 6001      ION
3267 6002      IOF
3270 6001      ION
3271 6002      IOF
3272 6001      ION
3273 6002      IOF
3274 6001      ION
3275 6002      IOF
3276 6001      ION
3277 6002      IOF

```

/SET PRINTER FLAG
/SPF FAILED TO SET PRINTER FLAG
/FLAG IS ON

/INTERRUPT ERROR
/WRONG ADDRESS STORED

/SET PRINTER FLAG

/SPF FAILED TO SET PRINTER FLAG
/FLAG IS ON

3300 6001	ION	
3301 6002	IOF	
3302 6001	ION	
3303 6002	IOF	
3304 6001	ION	
3305 6002	IOF	
3306 6041	TSF	/WHAT HAPPENED TO MY FLAG
3307 7402	HLT	
3310 7410	SKP	
3311 3313	BACK11, +2	
3312 7410	SKP	/INTERRUPT OCCURRED DURING
3313 7402	HLT	/ION-IOF SEQUENCE
		/SEE LOCATION 0000
3314 6042	TCF	/CLEAR FLAG
3315 7200	CLA	
3316 1326	TAD BACK12	
3317 3002	DCA 2	
3320 6001	ION	
3321 7000	NOP	
3322 7000	NOP	
3323 7000	NOP	
3324 7000	NOP	
3325 7410	SKP	
3326 3330	BACK12, +2	
3327 7410	SKP	/INTERRUPT WITH NO
3330 7402	HLT	/FLAG.
3331 6002	IOF	
3332 6040	SPF	/SPF FAILED TO SET PRINTER FLAG.
3333 6041	TSF	
3334 7402	HLT	
3335 7200	CLA	
3336 1345	TAD BAC13	
3337 3002	DCA 2	
3340 6001	ION	
3341 7410	SKP	
3342 7402	HLT	/NO INTERRUPT
3343 7402	HLT	
3344 3343	OUT113, -1	
3345 3346	BAC13, +1	
3346 7440	SZA	
3347 7402	HLT	
3350 1000	TAD 0	
3351 7041	CLA	
3352 1344	TAD OUT13	
3353 7640	SZA CLA	
3354 7402	HLT	/INTERRUPT ERROR
		/WRONG ADDRESS STORED

```

3355 6040 /INTERRUPT TEST 14
3356 6041   SPF
3357 7402   TSF
3360 7200   HLT
3361 1370   CLA
3362 3002   TAD BAC14
3363 6001   DCA 2
3364 5765   ION
3365 3366   JMP I .+1
3366 7402   .+1
3367 3366   HLT
3370 3371   OUTT14, .-1
3371 7440   BAC14, .+1
3372 7402   SZA
3373 1000   HLT
3374 7041   TAD 0
3375 1367   CIA
3376 7640   TAD OUTT14
3377 7402   SZA CLA
        HLT

3400 6007 /INTERRUPT TEST 15,
3401 1212   CAF
3402 3002   TAD BAC15
3403 6001   DCA 2
3404 7000   ION
3405 6007   NOP
3406 6040   CAF
3407 6000   SPF
3410 5213   SKON
3411 7402   JMP .+3
3412 3411   HLT
3413 6007   BAC15, .-1
3414 5615   CAF
3415 3600   JMP I .+1
        IAIT1
        PAGE

3600 7200 /ILLEGAL AUTO INDEX TEST1
3601 5602   IAIT1, CLA
3602 4000   JMP I .+1
3603 4010   AND1
        K4010, 4010
        .+1
        AND I 4010
        AND1,
        RET1
        *K4010+.1
        TAD I K4010
        RET1,
        SZA
        3604 1603
        3605 7440

```

/SPF FAILED TO SET PRINTER FLAG

/NO INTERRUPT

/INTERRUPT ERROR
/WRONG ADDRESS STORED

/CLEAR THE WORLD
/GET RETURN INTERRUPT ADDRESS
/STORE IT IN ADDRESS 2
/INTERRUPT ON
/
/CLEAR THE WORLD
/SET PAINTER FLAG.

/CAF FAILED TO CLEAR ION
/CLEAR FOR EXIT.

/TEST INSTRUCTION

3606 7402 HLT
3607 7200
3610 3603
CLA
DCA I K4010

/ILLEGAL AUTO INDEX TEST 2

3611 7200
3612 5613
3613 2173
3614 2010
K2010, 2010
2173
*2173
AND2,
AND I 2010
2174 5775
2175 3615
JMP I .+1
RET2
/TEST INSTRUCTION
3615
3615 1614
3616 7440
3617 7402
TAD I K2010
SZA
HLT
/ERROR. AC SHOULD BE ZERO
/AND I 2010 ALTERED (2010)
3620 5621
3621 3622
JMP I .+1
AITST3

/ILLEGAL AUTO INDEX TEST 3

3622 7200
3623 5624
3624 1173
3625 1010
K1010, 1010
1173
*1173
AND3,
AND I 1010
1174 5775
1175 3626
JMP I .+1
RET3
/TEST INSTRUCTION
3626
3626 1625
3627 7440
3630 7402
TAD I K1010
SZA
HLT
/ERROR. AC SHOULD BE ZERO
/AND I 1010 ALTERED (1010)
3631 7200
3632 3625
CLA
DCA I K1010

/ILLEGAL AUTO INDEX TEST 4

3633 7200
3634 5635
3635 0574
3636 0410
K410, 412
*574
CLA
JMP I .+1
AND4
/ERROR. AC SHOULD BE ZERO
/AND I 1010 ALTERED (1010)

```

0574 0610 AND4, AND I 410
0575 5776 JMP I .+1
0576 3637 RET4
3637 *K410+1
3637 1636 TAD I K410
3640 7440 SZA
3641 7402 HLT
3642 7200 CLA
3643 3636 DCA I K410

```

/ERROR. AC SHOULD BE ZERO
/AND I 410 ALTERED (410)

/ILLEGAL AUTO INDEX TEST 5

```

3644 7200 CLA
3645 5646 JMP I .+1
3646 0372 AND5
3647 0210 K210, 210
3647 0371 *371
0371 5375 JMP .+4
0372 0610 AND I 210
0373 5774 JMP I .+1
0374 3650 RET5
3650 *K210+1
3650 1647 TAD I K210
3651 7440 SZA
3652 7402 HLT
3653 7200 CLA
3654 3647 DCA I K210

```

/TEST INSTRUCTION

/ERROR. AC SHOULD BE ZERO
/AND I 210 ALTERED (210)

/ILLEGAL AUTO INDEX TEST 6

```

3655 7200 CLA
3656 5657 JMP I .+1
3657 0130 AND6
3658 0110 K110, 110
3659 0130 *130
3660 0510 AND I 110
3661 5532 JMP I .+1
3662 3661 RET6
3661 *K110+1
3661 1660 TAD I K110
3662 7440 SZA
3663 7402 HLT
3664 7200 CLA
3665 3110 DCA 110

```

/TEST INSTRUCTION

/ERROR. AC SHOULD BE ZERO
/AND I 110 ALTERED (110)

/ILLEGAL AUTO INDEX TEST 7

3666	7200	CLA		
3667	5670	JMP I .+1		
3670	0124	AND7		
3671	0050	K50,		
	0124	*124		
0124	0450	AND7,		/TEST INSTRUCTION
0125	5526	AND I 50		
0126	3672	JMP I .+1		
		RET7		
3672	3672	*K50+1		
3672	1671	RET7,		
3673	7440	TAD I K50		
3674	7402	SZA		
		HLT		/ERROR. AC SHOULD BE ZERO
				/AND I 50 ALTERED (50)
3675	7200	CLA		
3676	3050	DCA 50		

/ILLEGAL AUTO INDEX TEST 8

3677	7200	CLA-		
3700	5701	JMP I .+1		
3701	0120	AND8		
3702	0030	K30,		
	0120	*120		
0120	0430	AND8,		/TEST INSTRUCTION
0121	5522	AND I 30		
0122	3703	JMP I .+1		
		RET8		
3703	3703	*K30+1		
3703	1702	RET8,		
3704	7440	TAD I K30		
3705	7422	SZA		
		HLT		/ERROR. AC SHOULD BE ZERO
				/AND I 30 ALTERED (30)
3706	7220	CLA		
3707	3030	DCA 30		

/ILLEGAL AUTO INDEX TEST 9

3710	7200	CLA		
3711	3000	DCA 0		
3712	5713	JMP I .+1		
3713	0074	IAITS9, AND9		
	0074	*74		
0074	0400	AND9,		/TEST INSTRUCTION
0075	5476	AND I 0		
0076	3714	JMP I .+1		
		RET9		

```

3714 1436 *IAITS9+1
3715 7440 RET9, TAD I K0
3716 7402 SZA
HLT
/ERROR, AC SHOULD BE ZERO
/AND I 0 ALTERED (0)
3717 7200 CLA
3720 3000 DCA 0

```

/ILLEGAL AUTO INDEX TEST 10

```

3721 7200 CLA
3722 5723 JMP I .+1
3723 0070 IAIT10, AND10

0070 0070 *70
0070 0407 AND10, AND I 7
0071 5472 JMP I .+1
0072 3724 RET10

3724 *IAIT10+1

```

/TEST INSTRUCTION

```

3724 1446 RET10, TAD I K0007
3725 7440 SZA
3726 7402 HLT

3727 7200 CLA
3730 3007 DCA 7

```

/ERROR, AC SHOULD BE ZERO
/AND I 7 ALTERED (7)

/CHECK FOR TTY BELL

```

3731 1347 TAD BLCNT
3732 7001 IAC
3733 3347 DCA BLCNT
3734 1347 TAD BLCNT
3735 1350 TAD RNCNT
3736 7640 SZA CLA
3737 5746 JMP I K200
3740 3347 DCA BLCNT
3741 1351 TAD BELCOD
3742 6046 TLS
3743 6041 TSF
3744 5343 JMP .-1
3745 5746 JMP I .+1
3746 0200 K200, 200
3747 0000 BLCNT, 0
3750 4762 RNCNT, -3016
3751 0207 BELCOD, 207

4010 *4010
4010 0000 0

4011 0000 STR, 0
4012 1220 TAD JMP IX
4013 3001 DCA 1

```


4014 3002
4015 3003
4016 2211
4017 5611
4020 5402
DCA 2
DCA 3
ISZ STR
JMP I STR
JMP IX, 5402

4200 7300
4201 4602
4202 4011
/PROCESSOR IOT TEST
PAGE
PIOTST, CLA CLL
JMS I .+1
STR

4203 7360
4204 6007
4205 7410
4206 7402
4207 7420
4210 7440
4211 7402
/PROCESSOR IOT TEST 1
CLA CMA CLL CML
CAF
SKP
HLT
SNL
SZA
HLT

4212 6040
4213 7410
4214 7402
4215 6041
4216 7402
4217 6007
4220 6041
4221 7410
4222 7402
4223 6003
4224 7410
4225 7402
/PROCESSOR IOT TEST 2
SPF
SKP
HLT
TSF
HLT
CAF
TSF
SKP
HLT
SRQ
SKP
HLT

4226 6007
4227 6040
4230 6003
4231 7402
/PROCESSOR IOT TEST 3
CAF
SPF
SRQ
HLT

4232 6007
4233 6035
4234 7410
4235 7402
4236 6040
4237 6041
4240 7402
4241 6003
4242 7410
4243 7402
/PROCESSOR IOT TEST 4
CAF
KIE
SKP
HLT
SPF
TSF
HLT
SRQ
SKP
HLT

/CLEAR ALL FLAGS, AC, AND LINK

/CAF SHOULD NOT SKIP

/CAF FAILED, AC AND LINK SHOULD BE ZERO

/SET PRINTER FLAG

/SPF SHOULD NOT SKIP

/SPF OR TSF FAILED

/CLEAR ALL FLAGS, AC, AND LINK

/CAF FAILED, TTY FLAG SHOULD BE CLEAR

/SKIP IF INTERRUPT REQUEST

/SRQ FAILED OR SPURIOUS INTERRUPT OCCURED

/CLEAR ALL FLAGS, AC, LINK, AND ENABLE TTY INTERRUPT

/SET PRINTER FLAG

/SKIP IF INTERRUPT REQUEST

/SRQ FAILED OR CAF FAILED TO ENABLE TTY INTERRUPT

/CLEAR ALL FLAGS, AC, AND LINK

/DISABLE TTY INTERRUPT, (AC 11 EQUALS ZERO)

/KIE SHOULD NOT SKIP

/SET PRINTER FLAG

/SPF OR TSF FAILED

/SKIP IF INTERRUPT REQUEST

/KIE FAILED TO DISABLE TTY INTERRUPT OR SRQ FAILED

```

4244 7201 /PROCESSOR IOT TEST 5
4245 6035 CLA IAC
4246 6040 KIE
4247 6041 SPF
4250 7402 TSF
4251 6003 HLT
4252 7402 SRQ
4253 6007 /PROCESSOR IOT TEST 6
4254 1267 CAF
4255 3002 TAD BACK13
4256 6001 DCA 2
4257 7410 ION
4258 7402 SKP
4259 6000 HLT
4260 6000 SKON
4261 7402 HLT
4262 6000 SKON
4263 7410 SKP
4264 7402 HLT
4265 5271 JMP .+3
4266 4270 BACK13, .+1
4267 7402 HLT
4270 7402 /PROCESSOR IOT TEST 7
4271 6007 CAF
4272 1304 TAD BACK14
4273 3002 DCA 2
4274 6001 ION
4275 6002 IOF
4276 7410 SKP
4277 7402 HLT
4278 6000 SKON
4279 7410 SKP
4280 7402 HLT
4281 5306 JMP .+3
4282 4304 BACK14, .+1
4283 7402 HLT
4284 6007 /PROCESSOR IOT TEST 8
4285 7040 CAF
4286 6004 CMA
4287 7410 GTF
4288 7402 SKP
4289 0064 HLT
4290 0064 AND K5200
4291 7440 SZA
4292 7402 HLT
4293 7360 /PROCESSOR IOT TEST 9
4294 6004 CLA CMA CLL CML
4295 7402 GTF
4296 7402 /ENABLE TTY INTERRUPT (AC11 IS SET)
4297 7402 /SET PRINTER FLAG
4298 7402 /SPF OR TSF FAILED
4299 7402 /SKIP IF INTERRUPT REQUEST
4300 7402 /KIE FAILED TO ENABLE TTY INTERRUPT OR SRQ FAILED
4301 7402 /CLEAR ALL FLAGS, AC, AND LINK
4302 7402 /TURN INTERRUPT ON
4303 7402 /ION SHOULD NOT SKIP
4304 7402 /SKIP IF INTERRUPT ON AND TURN INTERRUPT OFF
4305 7402 /SKON FAILED TO SKIP OR ION FAILED
4306 7402 /SKIP IF INTERRUPT ON AND TURN INTERRUPT OFF
4307 7402 /SKON FAILED
4308 7402 /ILLEGAL INTERRUPT OCCURRED
4309 7402 /CLEAR ALL FLAGS, AC, AND LINK
4310 7402 /TURN INTERRUPT ON
4311 7402 /TURN INTERRUPT OFF
4312 7402 /IOF SHOULD NOT SKIP
4313 7402 /SKIP IF INTERRUPT ON AND TURN INTERRUPT OFF
4314 7402 /IOF FAILED
4315 7402 /ILLEGAL INTERRUPT OCCURRED
4316 7402 /CLEAR ALL FLAGS, AC, AND LINK
4317 7402 /GET INTERRUPT FLAGS
4318 7402 /GTF SHOULD NOT SKIP
4319 7402 /MASK
4320 7402 /GTF FAILED, (AC SHOULD EQUAL 0000)
4321 7402 /SET LINK AND AC
4322 7402 /GET INTERRUPT FLAGS, (AC SHOULD EQUAL 4000)

```


INSTRUCTION	TEST 2	MAINDEC-8E-D08B	PAL10	V141	10-JUN-71	9149	PAGE 1-47
4320	7420	SNL					
4321	7402	HLT					/LINK SHOULD BE 1
4322	0064	AND K5200					/MASK
4323	7104	CLL RAL					/AC SHOULD EQUAL ZERO
4324	7430	SZL					
4325	7440	SZA					
4326	7402	HLT					/GTF FAILED
/PROCESSOR IOT TEST 10							
4327	6007	CAF					/CLEAR ALL FLAGS, (AC, LINK, AND ENABLE TTY INTERRUPT
4330	6040	SPF					/SET PRINTER FLAG
4331	6004	GTF					/GET INTERRUPT FLAGS, (AC SHOULD EQUAL 1000)
4332	0064	AND K5200					/MASK
4333	7006	RTL					/PUT INTERRUPT BUS- (AC SHOULD EQUAL 4000)
4334	7004	RAL					/FLAG INTO LINK, (AC SHOULD EQUAL ZERO)
4335	7430	SZL					
4336	7440	SZA					
4337	7402	HLT					/GTF FAILED TO GET INTERRUPT BUS FLAG
/PROCESSOR IOT TEST 11							
4340	6007	CAF					/CLEAR ALL FLAGS
4341	1356	TAD	BACK15				
4342	3002	DCA	2				
4343	6001	ION					/TURN INTERRUPT ON
4344	6004	GTF					/GET INTERRUPT FLAGS, (AC SHOULD EQUAL 0200)
4345	0064	AND K5200					/MASK
4346	6000	SKON					/SKIP IF INTERRUPT ON AND TURN INTERRUPT OFF
4347	7402	HLT					/GTF CLEARED INTERRUPT (ION)
4350	7102	CLL BSW					/PUT INTERRUPT BUS- (AC SHOULD EQUAL 0002)
4351	7012	RTR					/FLAG INTO LINK, (AC SHOULD EQUAL ZERO)
4352	7430	SZL					
4353	7440	SZA					
4354	7402	HLT					/GTF FAILED TO GET INTERRUPT FLAG
4355	5360	JMP	.+3				
4356	4357	BACK15, .+1					/ILLEGAL INTERRUPT OCCURED
4357	7402	HLT					
/PROCESSOR IOT TEST 12							
4360	7320	CLA CLL CML					
4361	1375	TAD	BACK16				
4362	3002	DCA	2				
4363	6005	RTF					/RESTORE ALL FLAGS
4364	7410	SKP					
4365	7402	HLT					/RTF SHOULD NOT SKIP
4366	7420	SNL					/LINK SHOULD BE ZERO
4367	7440	SZA					/AC EQUALS ZERO
4370	7402	HLT					/RTF FAILED, LINK AND AC SHOULD BE ZERO
4371	6000	SKON					/SKIP IF INTERRUPT ON AND TURN INTERRUPT OFF
4372	7402	HLT					/RTF FAILED TO TURN INTERRUPT ON
4373	5774	JMP I, .+1					
4374	4400	PTST14					
4375	4376	BACK16, .+1					
4376	7402	HLT					/ILLEGAL INTERRUPT OCCURED
PAGE							
4400							

```

4400 6007 /PROCESSOR IOT TEST 13
4401 1215 PTST14, CAF
4402 3002 TAD BACK17
4403 7330 DCA 2
4404 6005 CLA CLL CML RAR
4405 7420 RTF
4406 7402 SNL
4407 6000 HLT
4410 7402 SKON
4411 6007 HLT
4412 7300 CAF CLL
4413 5614 JMP I.+1
4414 2677 INTEST
4415 4416 BACK17, .+1
4416 7402 HLT

```

/AC EQUALS 4000
 /RESTORE ALL FLAGS
 /RTF FAILED TO RESTORE LINK
 /SKIP IF INTERRUPT ON AND TURN INTERRUPT OFF
 /RTF FAILED TO TURN INTERRUPT ON
 /CLEAR ALL FLAGS, AC, LINK, AND ENABLE TTY INTERRUPT
 /GO TO INTERRUPT TESTS
 /ILLEGAL INTERRUPT OCCURED

S'

[illegible]

4600 4700

5000
5100

5200
5300

5400
5500

5600
5700

6200
6100

6200
63006400
65006600
6700

7000

7200
7300

7400 7500

7622

AITST3	3622	K1010	3625	OUT14	3367
AND1	4000	K110	3660	PIOTST	4200
AND10	0070	K1111	0062	PTST14	4400
AND2	2173	K1234	0177	RET1	3604
AND3	1173	K172	0173	RET10	3724
AND4	0574	K173	0174	RET2	3615
AND5	0372	K174	0175	RET3	3626
AND6	0130	K175	0176	RET4	3637
AND7	0124	K176	0172	RET5	3650
AND8	0120	K1777	0037	RET6	3661
AND9	0074	K200	3746	RET7	3672
BAC13	3345	K2010	3614	RET8	3703
BAC14	3370	K210	3647	RET9	3714
BAC15	3412	K2525	0054	RNGCNT	3750
BACK1	2713	K30	3702	RTF	6005
BACK10	3236	K3777	0021	SKON	6000
BACK11	3311	K4	0065	SPF	6040
BACK12	3326	K4010	3603	SRQ	6003
BACK13	4267	K410	3636	STR	4011
BACK14	4304	K4400	0052	TP0	0202
BACK15	4356	K4444	0056	TP177	0377
BACK16	4375	K4577	0053		
BACK17	4415	K50	3671		
BACK2	2761	K5200	0064		
BACK3	2735	K5252	0061		
BACK4	3013	K5555	0063		
BACK5	3044	K5777	0022		
BACK6	3076	K6666	0055		
BACK7	3124	K6777	0023		
BACK8	3146	K7070	0057		
BACK9	3213	K7377	0024		
BELC00	3751	K7577	0025		
BLCNT	3747	K7677	0026		
BSW	7002	K7737	0027		
CAF	6007	K7757	0031		
GTF	6004	K7767	0032		
IAIT1	3600	K7773	0033		
IAIT10	3723	K7775	0034		
IAITS9	3713	K7776	0035		
INTST	2677	K7777	0020		
JMP: X	4020	K1E	6035		
K0	0036	OUT1	2712		
K0001	0051	OUT10	3235		
K0003	0047	OUT2	2760		
K0007	0046	OUT3	2734		
K0017	0045	OUT4	3012		
K0037	0044	OUT5	3043		
K0077	0043	OUT6	3075		
K0177	0042	OUT7	3123		
K0377	0041	OUT8	3145		
K0707	0060	OUT9	3212		
K0777	0040	OUT13	3344		

/PDP-8/E INSTRUCTION TEST 2 MAINDEC-8E-D0BB PAL10 V141 10-JUN-71 9:49 PAGE 1-52

ERRORS DETECTED: 0

LINKS GENERATED: 0

RUN-TIME: 20 SECONDS

2K CORE USED